



July 28, 2004

William A. Bonnet
Vice President
Government and Community Affairs

The Honorable Chairman and Members of
the Hawaii Public Utilities Commission
465 South King Street
Kekuanaoa Building, 1st Floor
Honolulu, Hawaii 96813

PUBLIC UTILITIES
COMMISSION

2004 JUL 28 P 3:54

FILED

Dear Commissioners:

Subject: Docket No. 03-0371 – Proceeding to Investigate Distributed Generation in Hawaii

Pursuant to Prehearing Order No. 20922, filed April 23, 2004, attached are
HECO/HELCO/MECO's direct testimony information requests ("IRs") to the following
parties/participants*:

Consumer Advocate ("CA")
County of Maui ("Maui")
Hess Microgen LLC ("Hess")
Hawaii Renewable Energy Alliance ("HREA")
Life of the Land ("LOL")
Department of Business, Economic Development and Tourism ("DBEDT")

Sincerely,

Attachment

cc: Division of Consumer Advocacy (3)
A. Miyamoto
C. Y. Young, Esq.
W. S. Bollmeier II
R. Reed
S. Y. H. Wong, Esq.
M. de'Marsi
G. Sato
M. H. Kaya

A. M. Oshima, Esq. (2)
B. T. Moto, Esq.
K. K. Kobayashi
J. Crouch
H. Q. Curtis (3)
C. S. Coleman, Esq.
L. D. H. Nakazawa, Esq.
J. W. K. Chang, Esq.
S. Alber

* HECO/HELCO/MECO does not have IRs for the Kauai Island Utility Cooperative and County of Kauai.

WINNER OF THE EDISON AWARD
FOR DISTINGUISHED INDUSTRY LEADERSHIP



HECO/HELCO/MECO

Direct Testimony (“DT”) Information Requests (“IRs”) to the Consumer Advocate (“CA”)

HECO/CA-DT-IR-1 Ref: CA-T-1, Page 61, Lines 1-19

- a. If unbundled transmission, distribution and ancillary rates are revenue neutral, then why is it necessary to unbundle the existing rates to facilitate DG in Hawaii?
- b. Under the existing rate structure and the CA’s proposed unbundled rate structure, what would be the bill impact difference to a DG customer?

HECO/CA-DT-IR-2 Ref: CA-T-1, Page 74, Lines 12-18

- a. Does the CA believe that HECO’s proposed Schedule CHP Facilities Charge provides an adequate “offset in the form of contribution in aid of construction or other compensation” and that the capital costs for the CHP system should be included in HECO’s rate base?
- b. Please explain why it would be questionable to include the CHP system costs in rate base, as proposed in HECO’s CHP Program application, Docket No. 03-0366.

HECO/CA-DT-IR-3 Ref: CA-T-1, Page 79, Lines 5-7

The CA recommends that the Commission require each utility to prepare and provide unbundled rate structures for the Commission approval. What does the CA recommend to the Commission regarding the subsidies embedded in the HECO, HELCO and MECO’s current rates with its recommended unbundling of rates?

HECO/CA-DT-IR-4 Ref: CA-T-1, Page 60, Lines 16-19

Please explain how the CA’s proposal to unbundle rates should be done such that it “does not disrupt bundled rates used by the electric utility companies, and the Commission’s gradual approach in addressing inter- and intra-rate class subsidies”.

HECO/CA-DT-IR-5 Ref: CA-T-1, Page 75, Lines 7-13

Please confirm that the CA’s position stated in the referenced statements refer to utility-owned/installed CHP systems.

HECO/CA-DT-IR-6 Ref: CA-T-1, Page 8, Lines 13-14

The testimony states “A competitive bid process should be established for new generation, including DG resources.”

- a. Since many DG or CHP projects may be driven by customer choice, is the CA suggesting that when customers want DG or CHP, the Commission establish a process by which these customers will be required to competitively bid the projects?
- b. If yes, what procedures and bidding criteria is the CA suggesting be used?
- c. If no, what would determine which DG or CHP projects would be subject to the bidding process?

HECO/CA-DT-IR-7 Ref: CA-T-2, Page 18, Lines 3-8

The testimony states “Biomass generating projects have been developed in several states and are usually associated with water treatment facilities or other industries that produce the fuel source for the facilities such as wood waste or other biological waste that can be processed.”

- a. Is the CA aware of any biomass generating projects in which the biomass fuel is grown solely for use in the electricity generation process?
- b. If so, please provide the names and locations of such facilities.

HECO/CA-DT-IR-8 Ref: CA-T-1, Exhibit CA-101, Page 1 of 5

The CA classifies fuel cells as 'Dispatchable'.

- a. Can the CA provide more information about the dispatchability of fuel cells and its ability to follow load and provide operating reserve?
- b. Are there any fuel cell systems currently in commercial operation that are being dispatched by utilities to meet peak demand (i.e., ramped up or down by the utility to meet increasing or decreasing load)?
- c. Can the CA provide information that ramping up or ramping down will not degrade the fuel cell stack performance and operational life?

HECO/CA-DT-IR-9 Ref: CA-T-1, Page 35, Lines 15-20

The testimony states "If significant quantities of DG were installed inside the Honolulu load pocket, particularly firm dispatchable DG, such DG installations may alleviate some of the delivery system constraints into the Honolulu system load pocket and possibly delay the need date for additional firm resources, as well as the planned transmission system upgrades."

If DG is able to defer planned transmission upgrades, should the utility install DG resources if the capital and O&M costs of installing the DG resources are higher than installing the transmission system upgrades?

HECO/CA-DT-IR-10 Ref: CA-T-1, Page 37, Lines 4-5

The testimony states "The utilities' IRP needs to identify the geographic locations, feeder locations and range of capacity that could be implemented by DG facilities."

- a. With the presentations on transmission and distribution planning that have been made by HECO at the IRP Technical Committee meeting on April 23, 2004, does the CA believe that HECO's processes and proposed analysis for the IRP-3 are adequate to identify the geographic locations, feeder locations and range of capacity that could be implemented by DG facilities?
- b. If yes, please explain the CA's understanding of the process.
- c. If no, please outline the process that would need to be implemented for the IRP.

HECO/CA-DT-IR-11 Ref: CA-T-1, Page 73, Lines 8-16.

Have other utilities incorporated the proposed process of integrating DG into their IRP process? If yes, please provide the names of the utilities and related documentation.

HECO/HELCO/MECO

Direct Testimony (“DT”) Information Requests (“IRs”) to the County of Maui (“Maui”)

HECO/Maui-DT-IR-1 Ref: COM-T-1, Page 19, Lines 12-14

- a. Please identify any electric utilities that “aggregate networks of customer-sited generators together into “virtual power plants” to provide grid reliability services”?
- b. For any utilities provided in response to part a. above, please provide a website or contact information for the virtual power plant department, and detailed information on the capital and operating and maintenance costs for the “virtual power plants”.

HECO/Maui-DT-IR-2 Ref: COM-T-2, Page 52, Line 1

- a. Has the County of Maui conducted any assessment of how many emergency generators are in operation on Maui?
- b. If such an assessment has been conducted, please provide information on the number of emergency generators on Maui, including the make, model, size and age of the emergency generators.
- c. If the County of Maui has not made an overall assessment of the emergency generators on Maui, has it conducted an assessment of the emergency generators owned by the County of Maui? If so, please provide information on the number of emergency generators, including the make, model, size, age and location (i.e., street address of the units) of the emergency generators. If not, why has the County of Maui not made such an assessment?

HECO/Maui-DT-IR-3 Ref: COM-T-2, Page 57, Lines 1-9

- a. Is the County of Maui proposing a \$10,000 per new residence generation impact fee?
- b. Please identify any other jurisdictions that currently charge a generation impact fee, and provide program details as to how customers “earn back” much or all of this generation impact fee.

HECO/Maui-DT-IR-4 Ref: COM-T-2, Page 13, Lines 10-11

Please provide information on the land requirements (in acres per megawatt) for renewable DG systems?

HECO/Maui-DT-IR-5 Ref: COM-T-2, Page 29, Line 14

- a. What is an on-site system?
- b. Please describe geothermal heat pumps design and application?
- c. Can you provide examples of geothermal heat pump systems currently being used in the United States?
- d. Can you provide examples of geothermal heat pump systems currently being used in Hawaii?

HECO/Maui-DT-IR-6 Ref: COM-T-2, Page 43, Line 22

- a. What is an off-site renewable energy wind system?
- b. Please provide examples of off-site wind systems in Hawaii.

HECO/Maui-DT-IR-7 Ref: COM-T-2, Page 46, Lines 16-18

Please provide examples of off-site biomass systems in Hawaii.

HECO/Maui-DT-IR-8 Ref: COM-T-2, Page 47, Lines 12-15

- a. Please provide information on how these wind energy systems are reducing the peak load for the utility?
- b. Please provide information on how these wind energy systems are providing capacity to the utility when the wind is not blowing?

HECO/Maui-DT-IR-9 Ref: COM-T-2, Page 48, Lines 14-16

- a. Please provide examples of on-site photovoltaic systems in Hawaii.
- b. Please provide examples of on-site solar thermal electric generation systems in Hawaii.
- c. Please provide examples of on-site use of biomass and waste materials in Hawaii.
- d. Are all these on-site renewable systems feasible and viable in Hawaii?

HECO/Maui-DT-IR-10 Ref: COM-T-2, Page 49, Lines 1-2

- a. Please provide information on how the on-site photovoltaic systems in Hawaii are reducing peak demand in Hawaii.
- b. Please provide information on how the on-site solar thermal electric generation system are reducing peak demand in Hawaii.

HECO/Maui-DT-IR-11 Ref: COM-T-1, Page 12, Lines 7-8

The testimony states “Appropriately priced standby rates are important for creating a level playing field between DG and conventional electric utility services.”

- a. Please provide all calculations and workpapers that show how “appropriately priced standby rates” would be determined.
- b. Please provide all calculations and workpapers that show how such “appropriately priced standby rates” would create a level playing field between DG and conventional electric utility services.

HECO/Maui-DT-IR-12 Ref: COM-T-1, Page 16, Lines 10-12

The testimony states “the COM recommends that the Commission direct MECO to modify its planned Capacity Buy-back ("CBB") program into an expanded virtual power plant program.”

- a. What would be the capital and operating and maintenance costs of the “virtual power plant program”?
- b. What would be the benefits of the “virtual power plant program”?
- c. Would such a “virtual power plant program” be cost-effective? If so, please provide workpapers that show that such a program would be cost-effective.

HECO/Maui-DT-IR-13 Ref: COM-T-2, Page 52, Lines 14-15

The testimony states “HELCO contracted with several large customers with emergency generators to switch some of their loads to their own generators during high-load hours.”

- a. What is the basis for this statement? Please provide copies of any materials relied on in support of the statement.
- b. Please identify the large customers with emergency generators with whom HELCO allegedly had contracts to switch some of their loads to their own generators during high-load hours.
- c. Please provide a copy of any one of such contracts.

HECO/Maui-DT-IR-14 Ref: COM-T-2, Page 9, Lines 2-5

Please illustrate the concept of “front-loaded” cost recovery.

HECO/Maui-DT-IR-15 Ref: COM-T-2, Page 44, Lines 19-22

Please provide all workpapers and analysis supporting the “30%-45%” utility fuel efficiency cited in the referenced statement.

HECO/Maui-DT-IR-16 Ref: COM-T-1, Page 15, Lines 10-11

The County of Maui states “The COM recommends the adoption of reasonable interconnection standards and procedures of DG systems by the Companies.”

- a. Please fully explain what the County of Maui mean when it states “reasonable interconnection standards and procedures”.
- b. Are the interconnection standards and procedures included in MECO’s Rule 14.H “reasonable interconnection standards and procedures”? If the answer is anything other than an unqualified “yes”, please fully explain why the County of Maui alleges that the interconnection standards and procedures in MECO’s Rule 14.H are not reasonable, including in the explanation the specific terms, conditions, provisions and/or other passages that the County of Maui alleges are not reasonable, and how the County of Maui proposes to modify the interconnection standards and procedures in MECO’s Rule 14.H to make them reasonable.

HECO/Maui-DT-IR-17 Ref: COM-T-2, Page 48, Lines 1-2

Please provide a list of utilities that “recognize the capacity value of wind generation” in the development of their standby rates.

HECO/Maui-DT-IR-18 Ref: COM-T-2, Page 46, Lines 8-10

Please clarify the emergency generator “option” that the witness does not consider important in this proceeding.

HECO/Maui-DT-IR-19 Ref: COM-T-2, Page 49, Lines 9-11

- a. Please provide a list of utilities with hookup fees which encouraged builders to install solar water heaters.
- b. Would the County of Maui agree that changes to the Model Energy Code requiring the use of solar water heaters would be just as effective in increasing the penetration of solar water heaters as a hookup fee? If the answer to part a. above is no, please explain.

HECO/Maui-DT-IR-20 Ref: COM-T-2, Page 50, Lines 13-21

- a. Please provide a list of utilities currently employing the “virtual power plant concept”.
- b. Please provide a copy of each utility’s tariff outlining the terms and conditions, and rates associated with the operation of a “virtual power plant”.

HECO/Maui-DT-IR-21 Ref: COM-T-2, Page 51, Lines 5-8

Who would pay for the costs of the “synchronization equipment and safety devices, and the development of “coordinated telemetry and centralized dispatch system” that are required to develop the County of Maui’s proposed “virtual power plant”?

HECO/Maui-DT-IR-22 Ref: COM-T-2, Page 56, Lines 1-4

Please provide evidence that MECO’s line extension policy encourages “sprawl”.

HECO/Maui-DT-IR-23 Ref: COM-T-2, Page 56, Lines 10-13

- a. Please provide all workpapers and analysis to support the claim that “new customers add more to costs than to revenues for the utility”.
- b. Is it the County of Maui’s position that the impact of a “new customer’s load” on utility system is different from the impact of an existing customer’s load growth? Please explain your position.
- c. Will the County of Maui’s proposed generation impact fee or connection charge apply to all new residential and non-residential customers?
- d. Please provide a list of utilities that have implemented generation impact fees or connection charges that is the same or similar to the County of Maui’s proposal.
- e. How would the County of Maui’s proposed generation impact fee affect the deployment of distributed generation to the utilities’ existing customers?
- f. Is it the County of Maui’s intent to only effect or encourage the installation of distributed generation by the utilities’ “new customers”?

HECO/Maui-DT-IR-24 Ref: COM T-2, Page 58, Line 15-18

Please provide the workpapers showing the calculation of the Residential Consumer Owner financing of \$384 and \$335, and the Utility Financing of \$718 in the referenced table.

HECO/Maui-DT-IR-25 Ref: COM-T-2, Page 60, Lines 14-16

Please provide a list of electric utilities that have implemented “full cost” generation impact fees.

HECO/Maui-DT-IR-26 Ref: COM-T-2, Page 61, Lines 1-4

Please provide a list of electric utilities that have implemented generation impact fees based on the “second approach” discussed in the referenced statements.

HECO/Maui-DT-IR-27 Ref: COM-T-2, Page 66, Lines 13-16

Please provide all workpapers and analysis supporting the claim of the “current subsidies of new customers by existing customers.”

HECO/Maui-DT-IR-28 Ref: COM-T-2, Page 67, Lines 20-21

Does the County of Maui know of any utilities where impact fees have resulted in the deferral of the construction of generating facilities? If yes, please provide the names of the utilities, the contact person(s) names and telephone numbers, and any evidential reports or documents from such utilities.

HECO/Maui-DT-IR-29 Ref: COM-T-2, Page 70, Lines 15-17

Please provide all analysis and workpapers supporting the claim that providing service under MECO's Schedule P for standby service "results in customers making excessive contribution to MECO's fixed costs".

HECO/Maui-DT-IR-30 Ref: COM-T-2, Page 85, Lines 11-13

Please explain how the proposed inverted rate design for the residential class will facilitate the development and deployment of distributed generation.

HECO/Maui-DT-IR-31 Ref: COM T-2, Page 91, Line 20-21

Please provide copies of long-term contracts where customer demands are a significant percentage of total utility sales.

HECO/Maui-DT-IR-32 Ref: COM-T-2, Pages 92-93

- a. Please provide a list of electric utilities that provide preferential treatment to the County or municipal agencies as to provide wheeling service only to these customers.
- b. Please explain what is meant by the County being "permanent components of the community".
- c. Please provide a list of projects that the County of Maui has developed that resulted in "economic savings" and where such savings were "returned to the public", or where the "economic savings is returned to the same people."

HECO/Maui-DT-IR-33 Ref: COM-T-2, Page 94, Lines 5-7

Please explain how Performance-Based Ratemaking will facilitate the development and deployment of distributed generation.

HECO/Maui-DT-IR-34 Ref: COM-T-2, Page 50, Lines 15-21

Has the County of Maui had any discussions with hospitals and other owners of emergency generators to determine the level of their interest in turning over the ownership and operation of their emergency generators to be used as a utility resource serving all customers instead of serving the emergency generators' intended specific load at the customer's location?

HECO/Maui-DT-IR-35 Ref: COM-T-2, Page 19, Lines 26-27

What would the County of Maui term an enterprise that offers all of its customers competitive rates via a tariff, regardless of the customers' alternatives?

HECO/Maui-DT-IR-36 Ref: COM-T-2, Page 24, Lines 9-11

- a. Please explain the basis for the County of Maui's position that assisting customers with the selection of CHP equipment is little different than providing information on efficient household appliances.

- b. What is the County of Maui's understanding of and experience in specifying equipment for a CHP installation at a customer site?

HECO/Maui-DT-IR-37 Ref: COM-T-1, Page 9, Lines 4-9

- a. What is the County of Maui's definition of "privately used consumer energy products and services?"
- b. From the standpoint of HRS 269, what differentiates a utility-owned and operated CHP system at a customer site from a utility-owned and operated transformer that is installed at a customer site and is dedicated for the customer's use? (Note that a transformer may also be customer-owned.)

HECO/Maui-DT-IR-38 Ref: COM-T-1, Page 7, Lines 20-23 through Page 8, Lines 1-14
By Decision and Order No. 17957, filed August 8, 2000, Docket No. 99-0369, the Commission approved the installation of DG units at MECO's Hana Substation. Is it the County of Maui's position that the Hana Substation DG units are "prohibited" and that the Commission made an error in approving the installation of these DG units.?

HECO/Maui-DT-IR-39

The County of Maui's May 7, 2004 Preliminary Statement of Position discussed the fourteen issues set forth in Prehearing Order No. 20922, filed April 23, 2004. Please state whether the County of Maui's position on the fourteen issues has changed from the position set forth in its Preliminary Statement of Position. If the answer is anything other than an unqualified "no", please (1) identify each issue on which there has been a change in position, (2) state and fully discuss each changed position on the issues, and (3) provide the basis for each changed position on the issues (including a copy of any material relied in support of each changed position).

HECO/Maui-DT-IR-40 Ref: COM-T-1, Page 8, Lines 3-14

The County of Maui states that MECO was granted franchises "to own and operate power grid systems (centrally generated electricity delivered over power lines) because power grid systems were generally considered natural monopoly enterprises." Please provide the basis for this statement and include a copy of any materials relied on in support of such statement.

HECO/Maui-DT-IR-41 Ref: COM-T-1, Page 8, Lines 16-18

The County of Maui states "[t]he ownership and operation of consumer DG and DER for private use does not appear to be public utility activity, as defined by Hawaii Revised Statutes ("HRS") Chapter 269-1."

- a. Please fully explain what the County of Maui means when it states "consumer DG and DER".
- b. Please fully explain what the County of Maui means when it states "for private use".
- c. Please fully explain what the County of Maui means when it states "public utility activity". Please provide the basis for such explanation and provide any materials relied on by the County of Maui in support of such statement.

HECO/Maui-DT-IR-42 Ref: COM-T-1, Page 10, Lines 7-15

The County of Maui states “an alleged case of market power was documented by the National Renewable Energy Laboratory (‘NREL’) in their study, ‘Making Connections: Case Studies of Interconnection Barriers and their Impact on Distributed Power Projects.’ [Footnote 6 omitted.] The case study was not reported by Pacific Machinery, Johnson Controls, or Noresco. This case study is anonymously identified in the publication as Case #14—120-kW Propane Gas Reciprocating Engine for Base Load Service at Hospital. The actual facility was not a hospital, but the identity of the facility was changed to help protect the identity of the implicated electric utility company.”

- a. Please provide the basis for the statement that “the actual facility was not a hospital”. Please provide a copy of any material relied on in support of this statement.
- b. Please provide the basis for the statement that “the identity of the facility was changed to help protect the identity of the implicated electric utility company.” Please provide (1) a copy of any material relied on in support of this statement, (2) the identity and location of the actual facility, and (3) the identity of the vendor (e.g., Pacific Machinery, Johnson Controls, Noresco, etc.) working with the “hospital” to have the DG unit installed.

HECO/Maui-DT-IR-43 Ref: COM-T-2, Page 24, Lines 9-13

Mr. Lazar states “Assisting customers with the selection of equipment is little different than providing information on efficient appliances to residential customers – in order for ‘competition’ to produce an ‘efficient’ result, customers need access to ‘perfect’ (or as close as is reasonably achievable) information.”

- a. Please fully explain what the County of Maui means by “efficient” as used in the statement above.
- b. Please fully explain what the County of Maui means by “perfect information” as used in the statement above.

HECO/Maui-DT-IR-44 Ref: COM-T-2, Page 47, Lines 12-15

Mr. Lazar states “Wind energy is now widely recognized as having a ‘capacity credit’ to reflect the fact that wind resources often provide peak load relief to the utility. My own research on this topic presented in Docket 7310 showed that a capacity credit approximately equal to the capacity factor of the wind resource was appropriate.”

- a. Did the PUC make a determination in Docket 7310 as to whether wind energy should receive a “capacity credit”?
- b. Has the PUC made a determination in dockets subsequent to Docket 7310 as to whether wind energy should receive a “capacity credit”?

HECO/Maui-DT-IR-45 Ref: COM-T-2, Page 70, Lines 10-11

Mr. Lazar states “I have attached Southern California Edison’s standby service tariff as Exhibit COM-203, as an example of the form of a relatively progressive standby tariff.”

- a. Is the County of Maui proposing that MECO implement a standby tariff? If the answer is anything other than an unqualified “yes”, please fully explain the response and the basis for the response.
- b. Is the County of Maui proposing that MECO use Southern California Edison’s standby service tariff verbatim to implement a standby service tariff? If the answer is anything other than an unqualified “yes”, please fully explain why Southern California Edison’s

standby service tariff was attached to COM-T-2 and how the parties to this docket should use the standby service tariff.

HECO/Maui-DT-IR-46 Ref: COM-T-2, Page 79, Lines 3-7

Mr. Lazar states “A detailed service agreement should be required for any standby service. It should extend for multiple years for firm standby service, as the utility must plan and build facilities to serve the probability-weighted service requirements. For best-efforts standby service, where no facilities are being built, a short-term agreement may be reasonable, but it must be unambiguous about the risks to the customer associated with this option.”

- a. Please quantify how many years Mr. Lazar means when he states “multiple years for firm standby service”.
- b. Please quantify how many years Mr. Lazar means when he states “a short-term agreement may be reasonable”.

HECO/HELCO/MECO

Direct Testimony (“DT”) Information Requests (“IRs”) to Hess Microgen LLC (“Hess”)

HECO/Hess-DT-IR-1 Ref: Hess-T-2, Page 5, Lines 3-11

- a. Is Hess aware that Sheet No. 34D-4 of Rule 14.H includes a flowchart, which provides criteria for additional technical study and Sheet No. 34D-5 contains the time frame for the initial review process?
- b. Is Hess aware that sheet 4 of SCE’s Rule 21 contain provisions, which require an interconnection requirements study (with time frames and costs determined by the utility in the Supplemental Review Process) similar to HECO’s process outlined in Appendix III of Rule 14.H?

HECO/Hess-DT-IR-2 Ref: Hess-T-1, Page 3, Lines 5-6

- a. Is Hess aware that there is an interconnection agreement process in Rule 14.H, Appendix III which includes a flowchart of the major steps in finalizing an interconnection agreement and timeframes for utility responses?
- b. Does Hess believe that the timeframes for utility responses included in Appendix III are reasonable? If not, please explain why.

HECO/Hess-DT-IR-3 Ref: Hess-T-2, Page 4, Lines 8-11

Can Hess provide documentation regarding the improved power quality that on-site CHP package systems provide?

HECO/Hess-DT-IR-4 Ref: Hess-T-2, Page 5, Lines 22-28

Hess states “As a starting point, I would suggest the criteria established by Rule 21 for Southern California Edison. Under Rule 21, no supplemental technical review is required if a customer meets the following requirements: provides a complete application for interconnection; the proposed interconnection equipment is certified for the proposed application; the aggregate generating facility capacity on the line section is less than 15% of the circuit load; the starting voltage drop screen is met; the gross generating facility capacity is 10 MW or less; the short circuit current contribution screen is met; and the line configuration screen is met.”

- a. Please provide a copy of “a complete application for interconnection”. The form does not have to have customer information included.
- b. Please explain in detail what the following statement means: “the proposed interconnection equipment is certified for the proposed application”, including in the explanation, what certification is being referenced, what is the basis for the certification, who makes the certification, and where such certification is referenced in Southern California Edison’s (“SCE”) Rule 21.
- c. Please explain in detail what the following statement means: “the starting voltage drop screen is met”, including in the explanation, what is “the starting voltage drop screen”, and a reference to where such starting voltage drop screen is referenced in SCE’s Rule 21.
- d. What is the size (in MWs) of SCE’s electrical system? A gross generating facility of 10 MW makes up what percent of SCE’s electrical system?
- e. Please explain in detail what the following statement means: “the short circuit current contribution screen is met”, including in the explanation, what is “the short circuit current

contribution screen”, and a reference to where such short circuit current contribution screen is referenced in SCE’s Rule 21.

- f. Please explain in detail what the following statement means: “the line configuration screen is met”, including in the explanation, what is “the line configuration screen”, and a reference to where such line configuration screen is referenced in SCE’s Rule 21.

HECO/Hess-DT-IR-5

Hess’ May 7, 2004 Preliminary Statement of Position discussed the fourteen issues set forth in Prehearing Order No. 20922, filed April 23, 2004. Please state whether Hess’ position on the fourteen issues has changed from the position set forth in its Preliminary Statement of Position. If the answer is anything other than an unqualified “no”, please (1) identify each issue on which there has been a change in position, (2) state and fully discuss each changed position on the issues, and (3) provide the basis for each changed position on the issues (including a copy of any material relied in support of each changed position).

HECO/HELCO/MECO

Direct Testimony (“DT”) Information Requests (“IRs”) to Hawaii Renewable Energy Alliance (“HREA”)

HECO/HREA-DT-IR-1 Ref: HREA-T-1, Page 8, Lines 14-16

Please explain HREA’s understanding of costs of a power purchase agreement that are reflected in utility rates.

HECO/HREA-DT-IR-2 Ref: HREA-T-1, Page 9, Lines 16-18

Please explain the basis for the statement that “the Companies have access to lower cost financing”. Please provide specific examples.

HECO/HREA-DT-IR-3 Ref: HREA-T-1, Page 9, Lines 23-25

- a. Is it HREA’s belief that the Companies have intimate knowledge of a customer’s energy usage beyond the meter?
- b. Is it HREA’s belief that the Companies have more knowledge of a customer’s energy usage beyond the meter than an energy services company (“ESCO”)?

HECO/HREA-DT-IR-4 Ref: HREA-T-1, Page 11, Line 15

Please describe where in the Companies’ CHP Program application it is indicated that customer choice would be effectively limited to the Companies’ offerings.

HECO/HREA-DT-IR-5 Ref: HREA-T-1, Page 11, Lines 16-17

- a. If the Companies did not invest in CHP and allowed large customer loads to be lost to non-utility CHP, does HREA believe that ratepayers are better off?
- b. Has HREA conducted any quantitative analysis that compares the impact of lost revenues to the impact of a utility CHP investment? If so, please provide the analysis.

HECO/HREA-DT-IR-6 Ref: HREA-T-1, Page 15, Line 25

What future rate increases might be seen due to utility revenue losses to independent DG developers?

HECO/HREA-DT-IR-7 Ref: HREA-T-1, Page 9, Lines 8-10 and Page 10, Lines 10-12

HREA states: “In the case of CHP and other non-net-metered technologies, a new competitive market is emerging. However, companies seeking to enter this market, especially those promoting CHP, have experienced barriers including:

* * *

Requirements that third party CHP developers must share competitive information about pending CHP projects with the utility as part of the interconnection agreement negotiation process”.

- a. Please provide the names of the “CHP developers” that had to share “competitive information about pending CHP projects with the utility as part of the interconnection agreement negotiation process”.
- b. For each “CHP developer” listed in subpart “a”, identify the name of the developer’s customer and the location of the CHP project.

- c. For each “CHP developer” listed in subpart “a” and installation listed in subpart “b”, specify the “competitive information about pending CHP projects” that the “CHP developer” had to share with the utility.

HECO/HREA-DT-IR-8 Ref: HREA-Exhibit HREA-C, Page 1

HREA states “Scheibert Energy Company – Hawaii (SECOHI) has estimated they will install 9 MWs over the next 2 years (not included in the Companies’ estimate) and will offer 7 year contracts.”

- a. Please state the basis for HREA’s statement that SECOHI “will install 9 MWs over the next 2 years (not included in the Companies’ estimate)”. Please (1) provide a copy of any documents relied on by HREA as the basis for HREA’s statement, and (2) specify the names of the companies that will have CHP projects (totaling 9 MWs) installed over the next 2 years and the size of the CHP projects that will be installed.
- b. Please state the basis for HREA’s statement that SECOHI “will offer 7 year contracts.” Please provide a copy of any materials relied on by HREA as the basis for HREA’s statement.

HECO/HREA-DT-IR-9

HREA’s May 7, 2004 Preliminary Statement of Position discussed the fourteen issues set forth in Prehearing Order No. 20922, filed April 23, 2004. Please state whether HREA’s position on the fourteen issues has changed from the position set forth in its Preliminary Statement of Position. If the answer is anything other than an unqualified “no”, please (1) identify each issue on which there has been a change in position, (2) state and fully discuss each changed position on the issues, and (3) provide the basis for each changed position on the issues (including a copy of any material relied in support of each changed position).

HECO/HELCO/MECO

Direct Testimony (“DT”) Information Requests (“IRs”) to Life of the Land (“LOL”)

HECO/LOL-DT-IR-1 Ref: LOL-T-1, Page 2, Lines 7-12

- a. Please provide an exhibit with the education and work experience of witness Jessica Wooley.
- b. Has Jessica Wooley previously provided testimony before the Hawaii PUC, the Hawaii Legislature or any other utility commission. If so, please provide copies of the testimony and exhibits.

HECO/LOL-DT-IR-2 Ref: LOL-T-1, Page 2, Footnote 2

- a. For each of the reports listed in footnote 2, please respond to the following: 1) did witness Jessica Wooley read the report in its entirety, and 2) did witness Jessica Wooley agree with all of the findings and conclusions contained in the report? If the answer to number 2) is other than an unqualified “yes”, please fully discuss the findings and conclusions that the witness did not agree with, and state the basis for the witness’ disagreement.
- b. The reports listed in footnote 2 are the same as LOL exhibits 1-7 listed on page 5. Did LOL file hard copies of these exhibits with the Commission and parties to this proceeding? If the answer is no, please explain why not. (Note: HECO did not receive hard copies of these exhibits.)
- c. Please provide a hard copy of LOL-Ex-8.

HECO/LOL-DT-IR-3 Ref: LOL-T-1, Page 3, Lines 8-10

LOL states “As reported and quantified in many states, this kind of shift in energy production creates significantly more local jobs, greater earnings, and greater economic output.” Please provide the basis for LOL’s statement. If the basis includes written materials, please provide a copy of such written material. If the basis includes written materials that have previously been submitted by LOL in this docket, please provide the name of the document, when it was filed by LOL, and a page reference where the pertinent discussion is located.

HECO/LOL-DT-IR-4

LOL’s May 7, 2004 Preliminary Statement of Position discussed the fourteen issues set forth in Prehearing Order No. 20922, filed April 23, 2004. Please state whether LOL’s position on the fourteen issues has changed from the position set forth in its Preliminary Statement of Position. If the answer is anything other than an unqualified “no”, please (1) identify each issue on which there has been a change in position, (2) state and fully discuss each changed position on the issues, and (3) provide the basis for each changed position on the issues (including a copy of any material relied in support of each changed position).

HECO/HELCO/MECO

Direct Testimony (“DT”) Information Requests (“IRs”) to the Department of Business, Economic Development and Tourism (“DBEDT”)

HECO/DBEDT-DT-IR-1 Ref: DBEDT Testimony, Page 3, Lines 15-29 and Page 4,
 Lines 3-4

DBEDT provided a background statement regarding its participation in this docket and stated “DBEDT does not intend to provide oral testimony.” The Stipulated Prehearing Order (filed April 2, 2004) that was executed by all the parties/participants, which was approved by Prehearing Order No. 20922 filed April 23, 2004 in its entirety with respect to the procedures set forth, states (on page 9) that “[w]itnesses submitting written testimony and exhibits shall be made available for cross-examination at the hearing.”

Please identify DBEDT’s witness that will be made available for cross-examination at the evidentiary hearing. Please provide the following for the witness identified: (1) education and work experience, (2) whether the witness has previously testified before the Hawaii PUC, the Hawaii Legislature or any other utility commission, and (3) provide copies of the testimony (and exhibits) identified in (2).